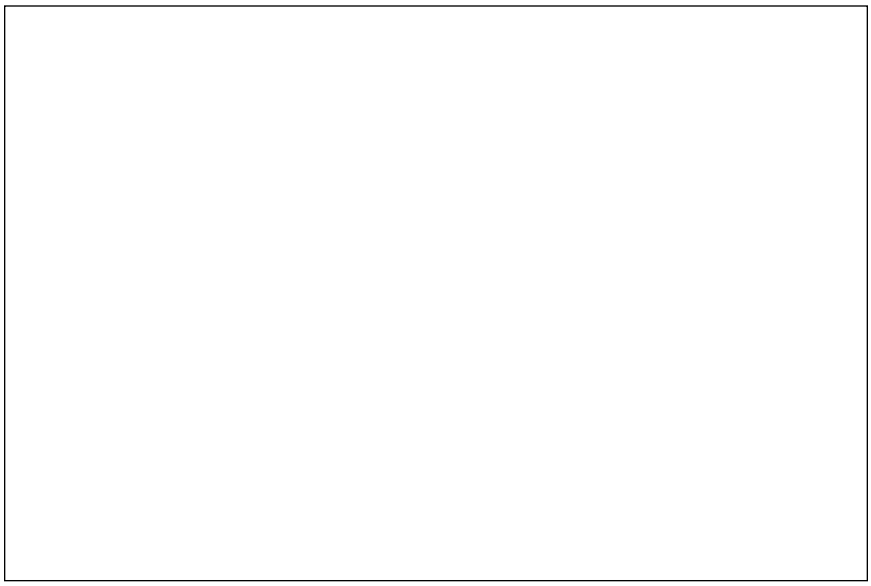
Roles and Missions



Seated are Drs. Walton S. Moody and Rebecca Grant. Standing is panel moderator Col. (now Brig. Gen.) David A. Deptula with Dr. Daniel R. Mortensen (*left*) and George W. Bradley III (*center*).

The Air Force and Strategic Air Power: Defining the Mission

Walton S. Moody

Some time ago I was giving my usual lecture on the origins of the Strategic Air Command, and someone asked if there was any prospect of the Air Force's breaking up Air Combat Command to recreate SAC and TAC. I'm afraid I didn't give as clear an answer to that as I should have, but the essential question to ask is what the mission of a separate strategic air command would be. For one thing, the Strategic Command we have now is a unified command, bringing in elements of more than one service. In any case, this is where the Air Force's inherent flexibility most closely intersects with national commitments and priorities. The ambiguity arises from the importance of strategic air power in the American air arm's history intersecting with its importance as a national mission. Furthermore, because it is a national mission, issues of command and strategy get intertwined.

Let me start by attempting to define strategic air power. In *Building a Strategic Air Force*, I attempted a multifaceted definition of the subject.[1] I was not entirely satisfied with what I came up with, and I'm still struggling with the problem. So maybe I will dispense with trying to be creative and just quote. What does Air Force Manual 1–1, *USAF Basic Doctrine,* say? It is significant that the current 1–1 de-emphasizes the definition of strategic air power. It is not one of the roles and missions mentioned in chapter 2, but under "Force application," one of the missions is strategic attack, defined as "to destroy or neutralize an enemy's war-sustaining capabilities or will to fight."[2] I might say in passing that Carl Spaatz knew that strategic attack can serve the aerospace control function as well. In the winter of 1944 he set out to win the battle for the air in Europe. To achieve this he employed a combination of strategic bombardment and escort pursuit.[3]

A lengthier definition is found in the functions statement of April 21, 1948, usually known as the Key West Agreement. This paper confers responsibility for strategic air warfare on the Air Force and then defines "strategic air warfare" as "Air combat and supporting operations designed to effect, through the systematic application of force to a selected series of vital targets, the pro-

gressive destruction and disintegration of the enemy's war-making capacity to a point where he no longer retains the ability or the will to wage war."[4] Clearly the newer and shorter definition is contained within the older one.

There are antecedents to these definitions. The distinction between tactical and strategic reconnaissance goes back to the specifications for the follow-on purchases of airplanes in 1912 after the early Wright acquisitions. The specifications distinguished between aircraft required for combat when enemy forces were in contact with friendly troops and when the enemy was at a distance.[5] In the 1920s and 1930s the Air Corps identified the main functions of the so-called Air Force as bombardment, pursuit, and attack. Bombardment was either tactical or strategic, depending on the targets.[6] This is what brings us to the Key West definition. The 1–1 is thus the more classical expression, more in tune with the older formulas of doctrine.

What these definitions have in common is a matter of targeting. But actual historical experience gives us pause. Before the Strategic Air Command, there was Spaatz' U.S. Army Strategic Air Forces (USASTAF) in the Pacific, the short-lived element of the war-ending structure. Before that, Spaatz had headed the U.S. Strategic Air Forces (USSTAF) in Europe. I will say more about these commands, but what they reflected was a national commitment to a mission of strategic bombardment. Even USSTAF, which was nominally under Eisenhower as theater commander, took its guidance for much of its time from the Combined Chiefs of Staff.[7] Here were organizations that had the word *Strategic* in their titles.

If the choice of word indicated that these commands were to engage in strategic bombardment, they were also responsive to the highest command authority. They represented in fact a national commitment to strategic bombardment. But they also addressed a long-standing issue of command. The model went back to Gorrell's Strategical Aviation staff in France in 1917 and 1918, which gave a precedent for the General Headquarters Air Force in interwar thinking, and which was established in 1935. Was the GHQ actually a theater command or was it part of the national command? Once it was clear that the Second World War would be a multitheater war, the air force concept meant that each theater required an air force of its own. Eighth Air Force, created in 1942, was formally the theater air force in Europe and was incorporated into USSTAF at the beginning of 1944.[8]

I need to carry the story further to place SAC in this context. The Unified Command Plan (UCP) of 1946 made SAC what would later be called a specified command. That is, it was an all–Air Force command reporting directly to the JCS. Unified commands included elements of more than one service. Thus SAC was directly under the highest command authority and would be assigned a mission determined at the national level. In contrast, the air element of a unified command got its mission from the theater commander.[9] Today's Joint Forces Air Component Commander embodies much of the old Air Force concept.

It would make a good deal of sense to define a strategic air force as being the force that is tasked directly by the highest authority. It's just that the historic definition of strategic bombing relates it to specific types of targets. But the separate strategic air force always existed when it had a specific mission, which was strategic attack. This was in essence the national mission to which I have been referring. The history of strategic air power in America has largely been the story of the national commitment to strategic bombardment, in response to specific military situations. But I want to say a few words about the context of strategic air power in the twentieth century.

As I like to describe it, the wars of the first half of the century were collisions between great industrial systems, sometimes known in the press as "war machines." In appearance, these systems were fragile, requiring a few hard blows to collapse them. The reality was very different: in fact they were robust, and only a grueling contest of attrition could bring them down. Douhet and other advocates of strategic air power believed that air power could deliver the knockout blow that would save everyone the painful war of attrition needed to wear down the enemy's industrial system. The idea of the knockout blow, whether through air power or armored thrusts or whatever, persisted throughout the 1920s and 1930s. In reality, strategic bombing turned out to be simply another, extremely effective, means of attrition. Likewise, Douhet thought of the knockout blow as beneficial to a poor country like Italy that could not sustain a long war of attrition.[10] In fact, strategic air power was a rich man's game, which only countries like America and Britain could afford.

To pick up the story, the experience of the First World War—when any alternative to the bleeding contest of the trenches was bound to have its supporters—illustrated how much effort was needed to build an effective strategic air force. In November 1918 the United States still had not one long-range squadron ready, although a number of Americans, including Robert Lovett, a future Secretary of Defense, had experience with allied long-range bombing units.

During the interwar years, as I have mentioned, the Air Corps discussed the Air Force concept, the role of bombardment, and the potential for strategic bombardment. I should say that the concept of daylight precision bombing by heavily armed, self-defending formations of long-range high-altitude bombers had great strengths as well as flaws. The theory provided a clear concept of how bombing could actually affect the outcome of a war, through the destruction of key points in the enemy's industrial system. Douhet and others had tended to assume that the morale effects of the attacks would somehow simply produce the enemy's collapse, that no other explanation was needed.

In America, the nation's isolationist mood robbed any hypothetical threat of credibility. The major achievement of the Air Corps in the field of strategic bombardment was the development of the B–17, but this was largely based on the argument that the range would be necessary for a variety of roles.

Primarily it was the growing sense that Germany might be the enemy in the next war that encouraged Franklin Roosevelt and the rest of the nation's leadership to consider a commitment to strategic air power.

The story of strategic air power in the Second World War is well known. I will point out only a few issues. The Churchillian strategy of bombing Germany to achieve attrition fit well with Army Chief of Staff Gen. George C. Marshall's concept that bombing would help prepare the way for the land invasion. The United States in 1939 was no better prepared for strategic bombing than the Royal Air Force was, but before bombers started hitting Germany, the Air Corps used its time fairly effectively. There were still lessons to be learned—the one about the value of a long-range escort fighter being the best known. The Army Air Forces (AAF) commander, Henry H. Arnold, had to make clear to the British that American aircraft production was going to support an *American* bomber force, not just the RAF.[11]

The ABC–1 talks, the Rainbow 5 war plan, the Victory Program and AWPD–1, the Atlantic Conference, and Plan Bolero all built up a commitment to sending an American force to Europe to bomb Germany. Eighth Air Force was created as the theater air force for Europe, but it evolved into the force for the strategic bombing of Germany as envisioned in Anglo-American planning, as was USSTAF in its turn.

The B–29 and the atom bomb, both developed for the war against Germany, were employed strategically against Japan. As I mentioned, a command directly under the JCS handled these operations. The debate over the use of the atom bomb has helped point up the tremendous importance of strategic air power against Japan as one of the alternatives to a land invasion in the light of the Japanese reputation for fanatical opposition.

Although controversy over the effectiveness of the strategic air offensives against Germany and Japan has yet to end, many in and out of the Air Force were convinced that the nation would need such a capability in advance of future wars. The AAF in March 1946 thus created SAC, and in December 1946 the JCS in the UCP made SAC a command directly responsive to it, what would later be called a specified command. Thus SAC was to carry out a national mission.[12]

The B–36 had also been developed for the offensive against Germany. By the time money was needed to make it operational, the nation was facing the need to deter Soviet aggression. The Air Staff in 1951 and 1952 developed the Air Concept which articulated a strategy that had been evolving in American thinking for some time. Nuclear-armed air power directed against the warmaking potential of the Soviet Union was essential to a credible deterrent.[13]

Thus a commitment to a strategic air force equipped with bombers of intercontinental range (using air refueling if necessary) and nuclear weapons

was central to America's strategy for the Cold War. The problem in 1947 and 1948 was that, although the national mission was in the war plans then in preparation, questions had arisen about its role, and SAC itself was in no condition to carry out its tasks. It was Curtis E. LeMay, who took command of SAC in October 1948, and turned it into an effective striking force. This meant that the Air Force was in a position to put up rather than to shut up.

In the Cold War era, SAC carried the load for some time as embodying the nation's commitment to strategic deterrence, but technology and service politics intervened to create the triad that consisted of bombers, ICBMs, and submarine-launched missiles. The SIOP came to be the nation's general war plan.[14] But the local wars of the Cold War era occurred at the theater level for the most part. And it was theater air forces that conducted bombing that was called strategic.

Anomalies resulted. With general war transformed into a deterrent standoff between the great industrial superpowers, local struggles assumed a new form. In the Korean War the real strategic targets were in Soviet territory and were not struck. When SAC intervened against genuine strategic objectives in Southeast Asia, it was by order of the President of the United States. In the Persian Gulf in 1991, the theater commander supported a strategic air campaign, and the Air Force was ready to respond.

This brings us back to the question I tried to answer before. In 1992 SAC went away, and a unified Strategic Command with Air Force components from ACC and other MAJCOMs took its place. This was still seen largely as a nuclear command. The story of strategic bombing has been affected by the emergence of precision conventional weapons. Above all, the question that nuclear weapons and strategic attack pose is whether the nation can define a mission for these capabilities. Until it does, as the Gulf War experience shows, the Air Force will have to be ready to respond.

Notes

1. Walton S. Moody, *Building a Strategic Air Force* (Washington: Air Force History & Museums Program, 1996), pp. ix–xi.

2. AFM 1–1, *Basic Aerospace Doctrine of the United States Air Force*, Mar 1992, pp. 6–7.

3. Richard G. Davis, *Carl A. Spaatz and the Air War in Europe* (Washington: Center for Air Force History, 1993), pp. 298–302.

4. Paper, "Functions of the Armed Forces and the Joint Chiefs of Staff," Apr 1948, in Alice C. Cole, Alfred Goldberg, *et al.*, eds. *The Department of Defense: Documents on Establishment and Organization, 1944–1978* (Washington: Office of the Secretary of Defense Historical Office, 1978), p. 285.

5. Juliette A. Hennessy, *The United States Army Air Arm, April 1861 to April 1917*, new imprint (Washington: Office of Air Force History, 1985), p. 58.

6. Thomas H. Greer, *The Development of Air Doctrine in the Army Air Arm, 1917–1941* new imprint (Washington: Office of Air Force History, 1985), pp. 9–10, 36–40.

7. Robert F. Futrell, *Ideas, Concepts, Doctrine: Basic Thinking in the United States Air Force, 1907–1960* (Maxwell AFB, Ala.: Air University Press, 1989), Vol. I, pp. 73–75, 147–165.

8. *Ibid*., Vol. I., pp. 19–27, 73–75, 147–165.

9. Ronald H. Cole, Walter S. Poole, *et al.*, *The History of the Unified Command Plan, 1946–1993* (Washington: Joint History Office, 1995), pp.11–14.

10. David MacIsaac, "Voices from the Central Blue: The Air Power Theorists," in Peter Paret, ed., *Makers of Modern Strategy: From Machiavelli to the Nuclear Age* (Princeton, N.J.: Princeton University Press, 1986), p. 630.

11. Forrest C. Pogue, *George C. Marshall: Ordeal and Hope, 1939–1942* (New York: Viking, 1966), pp. 141, 145.

12. Moody, *Building a Strategic Air Force*, pp. vii, 132–134.

13. *Ibid.*, pp 445–461.

14. David A. Rosenberg, "The Origins of Overkill: Nuclear Weapons and American Strategy, 1945–1960," *International Security*, Vol VII (Spring 1983), pp. 24ff.

Air Force Space Missions: Prophecy Fulfilled? A Historical Overview*

George W. Bradley III

It is rare for any historian, even a historian of contemporary affairs, to be present at a seminal point in history and to realize its significance at the time. However, I believe I was privy to such an occurrence. On November 19, 1996, the Commander of Air Force Space Command, Gen. Howell M. Estes III, called his headquarters staff to a meeting. He informed us that, at the most recently held periodic conference known as Corona, the senior leaders of the Air Force had committed to a new view of the institutional Air Force. As General Estes put it, "The Air Force has decided that it is no longer an Air Force, it is an *Air and Space Force,* and is evolving towards a *Space and Air Force.*" He paused and, looking at his assembled staff, declared, "It is our job to make it happen." General Estes went on to comment that, interestingly enough, the four-star commanders of flying commands, rather than the Space Command leader, were the most vocal about the need for the new perspective.[1]

I recognized at the time that I was, perhaps, witnessing a sea change in the organization. Within months, the Air Force issued its new vision for the twenty-first century, entitled "Global Engagement." Capitalizing on the concepts embedded in a previous mission statement known as Global Power—Global Reach,[2] the new catechism spelled out the Air Force's core competencies and crystallized the Air Force leadership's current view of its space mission:

> Ensuring that air and space power continues to make its unique contributions to the nation's Joint Team will take the Air Force through a transition of enormous importance. We are now transitioning from an *air* force to an *air and space* force on an evolutionary path to a *space and air* force. The threats to Americans and

*I acknowledge the contributions of Dr. David N. Spires and of my colleagues at the Air Force Space Command History Office, Drs. Rick Sturdevant and Richard Eckert, who served with me as editors of Dr. Spires' book, *Beyond Horizons: A Half Century of Air Force Space Leadership.* The insights in the manuscript and during the chapter seminars led me to many of the views suggested in this paper.

> American forces from the use of space by adversaries are rising while our dependence on space assets is also increasing. The medium of space is one which cannot be ceded to our nation's adversaries. The Air Force must plan to prevail in the use of space.[3]

Less than fifty years after the establishment of the Air Force as a separate service, its corporate leaders elected to change the core nature of the Air Force to emphasize the importance of space missions. That change can be better appreciated by an understanding of how those missions came into being. It is impossible in a short time to mention all the policy and planning events that contributed to the Air Force's space missions, or the roles and missions debates among the military services, or the man-in-space missions that the Air Force never acquired. This paper will attempt, therefore, only a brief overview of the evolution of the Air Force's space missions, focusing on the critical elements of their development, and will conclude with a summary of today's space missions.

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In the closing years of World War II, in September 1944, Gen. Henry "Hap" Arnold, Commanding General of the Army Air Forces, asked his longtime friend and technical consultant, scientist Theodore von Kármán, to organize a study group that would look at the long-range implications of scientific and technological advances for the future of the Army Air Forces. In August 1945 von Kármán's group of about twenty leading scientists and engineers, eventually known as the Scientific Advisory Board, produced a preliminary study, *Where We Stand*, that explored the future possibilities of air power. Among its recommendations was a proposal that the Army Air Forces pursue long-range missiles.[4] Based on studies by the von Kármán group and other bodies, Arnold, in a report to the Secretary of War in November 1945, emphasized the importance of missiles and satellites to the nation's defense. By mid-December 1945 von Kármán's Scientific Advisory Board had completed its thirty-three volume report, *Toward New Horizons*. Although the report's authors believed that air-breathing rockets would be the near-term focus of research, they mentioned the potential of intercontinental ballistic missiles and artificial satellites that would orbit the earth.[5]

A more detailed definition of potential military space capabilities was revealed in the Research and Development Corporation (RAND) report entitled *Preliminary Design of an Experimental World-Circling Spaceship*, which was produced in early May 1946.[6] That report is important in that it not only argued for the feasibility of an artificial satellite, but it is one of the first articulations of the utility of military satellites. Noted radar expert Louis N. Ridenour's chapter, "The Significance of a Satellite Vehicle," laid out possible

support roles, including weather, communications, and observation, and even briefly suggested a form of navigation. Equally important, Ridenour noted that rockets capable of propelling an ICBM might be used to launch satellites.[7] Thus, by the spring of 1946 the Air Force and its technical consultants had outlined a number of the crucial space missions that the Air Force would advocate, fund, and field over the next fifty years. To a great extent the satellite roles set out in RAND's *World-Circling Spaceship* would become the basis of the Air Force's space missions in the following decades.

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Despite the prophetic nature of the 1946 RAND report, the Air Force gave more lip service than real support to space missions. For example, although Gen. Hoyt Vandenberg, Air Force Chief of Staff, declared in a January 1948 policy statement that the Air Force had "the logical responsibility" for satellites, the Air Force failed to provide the funding necessary to pursue satellite development.[8] Nonetheless, RAND continued to produce report after report detailing the possibilities of satellites, especially in the area of reconnaissance, which continued to garner interest if not tangible support from Air Force leaders.

By 1954 national concerns about the possibility of a Soviet ICBM threat led a number of influential leaders such as Assistant Secretary of the Air Force Trevor Gardner, renowned Princeton mathematician Dr. John von Neumann, and Brig. Gen. Bernard Schriever to convince the Eisenhower administration of the need for a crash program to develop an American ICBM capable of delivering a nuclear weapon. That was a critical moment for the Air Force space mission since, as Ridenour had commented years earlier, the boosters necessary to propel ICBMs would be equally suited to launch satellites. In March 1954 RAND's Project Feed Back report advocated the first military satellite mission: reconnaissance. Adopting RAND's recommendation, the Air Force developed a study project and assigned it weapon system number 117L. WS–117L initially focused only on reconnaissance, but the project eventually included other aspects such as weather, observation, and warning (an early form of warning became known as MIDAS—Missile Defense Alarm System).

Thus, by 1954 the Air Force, primarily through its RAND studies, had spent nearly ten years investigating the possible uses of military satellites and was now beginning to pursue their development in earnest. What is remarkable is that the support roles envisioned in the 1946 RAND report remained virtually unchanged. Spurred by the Cold War, the Air Force, almost despite itself, began the inexorable march toward implementing those missions envisioned in 1946. Ironically, the reconnaissance mission, which had elicited the service's keenest interest, would eventually be taken from the Air Force and subsumed under the highly secret National Reconnaissance Office. The Air Force would retain what it considered the more mundane support functions

such as weather, navigation, communications, and warning.

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The Soviet Union's launch of *Sputnik I* in October 1957 advanced American concern for its own space program as perhaps no other event could have done. Moreover, the earlier decision to develop a crash program for ICBMs had also provided the necessary boosters for satellites. Taking advantage of the anxiety about the space race fueled by Sputnik, during the final years of the Eisenhower administration and the early years of the Kennedy presidency the Air Force argued that it should be the preeminent service for space missions. The Air Force also began to define those missions more carefully. Over the years, reports by RAND and other think tanks, and by various committees and projects within the Air Force, had proposed a variety of space missions. They often competed with those of other services as well as with the new civilian agency that emerged from the Sputnik furor, the National Aeronautics and Space Administration.

The politics and overlapping and competing interests were Byzantine, but a critical decision was reached in 1961. The Kennedy administration, spurred on by congressional criticism, attempted to delineate areas of responsibility for the space program that had not been resolved by the National Aeronautics and Space Act of 1958. In March 1961 Secretary of Defense Robert McNamara issued a directive that delineated the Air Force role in space as "research, development, test and engineering of Department of Defense space development programs or projects."[9] Although the other services were allowed to conduct preliminary research, and operational assignment of space systems would be accomplished on a case-by-case basis, the directive established the Air Force's primacy in space. By the end of 1961, the Air Force had not only achieved a singular role in national space programs, but it was heavily invested in the space missions that eventually would become dominant. Those included missile detection and early warning, space surveillance, communications, navigation, and meteorology.

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While Air Force space missions were closely defined by specific projects and programs in the 1950s and 1960s, thereafter a more doctrinal approach to Air Force space missions developed. Today they are grouped into four areas. The first, Space Forces Support, includes space launch and control of satellites after deployment. The deployed systems include the Defense Meteorological Satellite Program (weather), the Defense Support Program (detection of missile and space launches as well as nuclear detonations), the Navstar Global Positioning System (a constellation of twenty-four operational navigational satellites), and the Milstar Satellite Communications System (a secure, jam-resistant, worldwide communications satellite system).

The second, Space Control, includes a wide variety of capabilities cov-

ering space surveillance, space system protection, and prevention and negation measures. Systems in this area include a ground-based space surveillance network that detects, identifies, and tracks objects in space; space-based missile launch detection and early warning satellites (the Defense Support Program constellation); and a network of ground-based early warning radars.

Force Enhancement, the third, involves using information from space to support theater warfighters in the areas of communications, navigation of forces, surveillance of the battlefield and the weather over it, and advanced warning of enemy missile launches. The fourth, Force Application, means exactly what it says: the application of force through space to achieve national ends, i.e., one leg of America's triad, the land-based ICBM force consisting of Minuteman III and Peacekeeper missiles.[10]

The Air Force Space Command oversees those four mission areas. What is remarkable is the similarity between the missions envisioned in RAND's 1946 *World-Circling Spaceship* report, and those conducted by the Air Force today, more than fifty years later.

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I began my comments by noting that we are witnessing a major change in the institutional nature of the Air Force, a change that became evident with the acknowledgment by Air Force leaders that space had played a significant role in winning the Gulf War. That conflict has even been called the first space war, although there is some disagreement on that point. In June 1992 Gen. Merrill A. McPeak, Chief of Staff of the Air Force, gave further credence to the importance of space in a speech at Maxwell AFB entitled "Does the Air Force Have a Mission?" General McPeak declared that the mission of the Air Force was to "defend the United States through control and exploitation of air and space."[11] For the first time, space was overtly stated to be part of the core mission of the Air Force. The adoption of that mission statement paved the way for a more recent elaboration by present chief of staff, Gen. Ronald Fogleman. In a speech in October 1996, he explained in greater detail what the gathering at the fall 1996 Corona meeting meant by the shift toward a space force:

> In keeping with our nature and focus as a global force capable of employment at the strategic, operational, and tactical levels of war—and in view of the continued integration of capabilities in space—we've combined air and space superiority into one core competency. This change reflects the transition to an air and space force and the need to control the entire vertical dimension—the domain of air and space power.[12]

The past does not predict the future. Certainly, however, the direction that the Air Force has taken these past fifty years seems to indicate that the

space mission will continue to expand and dominate. I would like to conclude with an offhand remark heard during the fall 1996 Corona meeting to the effect that in the future we should expect to see, not a Captain or Admiral James T. Kirk of Star Fleet, but a Colonel or General Kirk of Space Forces.

Notes

1. G. Bradley, HQ AFSPC/HO, AFSPC/CC Staff Meeting, Nov 19, 1996.
2. See Pamphlet, Hon. Donald B. Rice, Secretary of the Air Force, *Reshaping for the Future,* Department of the Air Force, 1992.
3. Pamphlet, HQ USAF, *Global Engagement: A Vision for the 21st Century Air Force,* n.d., p 7.
4. Michael H. Gorn, *Harnessing the Genie* (Office of Air Force History, Washington, D.C., 1988), pp 23–31.
5. See Theodore von Kármán, *Toward New Horizons: Science the Key to Air Supremacy—Commemorative Edition, 1950–1992* (HQ Air Force Systems Command, 1992); also see Gorn, *Harnessing the Genie,* pp 35–50.
6. For the text of the report, see John M. Logsdon *et al.,* ed., *Exploring the Unknown: Selected Documents in the History of the U.S. Civil Space Program,* Volume I: *Organizing for Exploration* (NASA History Office, Washington, D.C., 1995), pp 236–244.
7. *Ibid.*
8. Robert L. Perry, *Origins of the USA Space Program, 1945–1956,* AFSC Publications Series 62–24–10, AFSC/Space Systems Division, 1961, p 23.
9. DOD Directive 5160.32, "Development of Space Systems," Mar 6, 1961.
10. Pamphlet, HQ AFSPC, *Guardians of the High Frontier,* n.d., pp 14–21; Pamphlet, HQ AFSPC/PA, "1995 Stakeholders Report," *The Guardian*, Feb 1996; Fact Sheet, "Air Force Space Command," Jun 1996.
11. Speech, Gen. Merrill McPeak, "Does the Air Force Have a Mission?" Maxwell AFB, Ala., Jun 19, 1992.
12. Speech, Gen. Ronald R. Fogleman, "Strategic Vision and Core Competencies," Air Force Association Symposium, Los Angeles, Calif., Oct 18, 1996.